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# China Report

AGRICULTURE

No. 80



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29 April 1980

# CHINA REPORT

## AGRICULTURE

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## I. GENERAL INFORMATION

### IDEAS FOR NEW POLICY FOR AFFORESTATION GIVEN

#### Fuel Forests

Beijing RENMIN RIBAO in Chinese 1 Jan 80 p 2

[Article: "If Forests Are Wanted in Afforestation, First Build Fuel Forests"]

[Text] (XINHUA, Chengdu) XINHUA reporter Yu Quanyu [0827 2938 1008] reports that an important lesson learned in afforestation work in Ziyang County, Sichuan Province, is: "if forests are to be gained from afforestation, fuel forests must first be built up."

Ziyang County is situated in the west-central hilly region of the Sichuan Basin. Through random cutting and denudation, there are now barren hills and bare ridges everywhere in the county; gravel lies exposed where soil erosion occurs. The revenge of nature has turned Ziyang County into what is known widely in the area as the "old drought zone."

In 1962, the County Committee and the County People's Committee of the time led the people of the whole county in a great effort to develop the afforestation movement. The scale of the afforestation was certainly not minor, and the strength of the masses was great. But it was "reforest every year without seeing any trees." The cause of this was traceable to their impatience for success. There was one-sided emphasis of planting trees for lumber, with little regard for building fuel forests.

With regard to the ecosystem, in the arid zone where vegetation has already been ruined, it is very difficult for a timber forest to survive. More important is the serious shortage of fuel in the farm villages, for when all the straw is burned up for fuel and proves thus insufficient, the people have no alternative but to shave the straw roots to use as fuel to burn. Under these circumstances the timber forest, which actually is built up slowly and which grows slowly, cannot avoid suffering damage. It cannot shake off the situation if, "Trees planted in the spring, half-grown by summer, turned gold in fall, nothing to be seen by winter."

Out of the masses come capable people, and out of practice comes genuine knowledge. The forestry cadres discovered that the Second Brigade of the Heping Commune first planted bamao [5359 5403], Vitex negundo [7806 5427], masang [7456 2718] and other fuel forest trees. On the average, each person planted 140 saplings, and, after resolving the problem of fuel, subsequently planted timber forests, with the result that many timber forests were preserved. This brought them a much clearer awareness. The peasants were inclined to plant timber forests, however, on the plateaus and hilly areas where there existed a serious shortage of fuel, they had to first plant fuel forests which could grow quickly and survive hardily. Only then could the development of timber forests be assured.

In 1964 the county committee made the decision to plant fuel forests extensively throughout the entire county, collecting and distributing in many places the seedlings of bamao, Vitex negundo, and masang. During that year each person on average planted more than 140 bamao and more than 60 Vitex negundo and masang.

Fuel forests and firewood are truly treasures. Bamao thrive as soon as they are planted, with each plant easily producing more than 10 jin of fuel within a few months. It grows after being cut, and the fuel problem of the villages can be rapidly eased. Moreover, each year 200,000 to 300,000 jin of bamao flowers can be sold. Not only can the branches and stalks of Vitex negundo and masang be used as fuel, but the leaves can be used as green manure and as pig feed, and the roots are capable of holding the soil and bringing about the moisturization of the arid hilly slopes, thus creating beneficial conditions for use in raising timber forests.

In 1965 and 1966, Ziyang County successively organized the masses in the planting of cypress trees, eucalyptus trees, and other timber trees, with major beneficial results. Each person in the county on the average planted 173 saplings, and the survival rate reached more than 60 percent.

Unfortunately, due to the damages wrought by the ultra-leftist road of Lin Biao and the "gang of four," much of the just-matured timber forest growth was destroyed. But the people at least understood that if only they could persist in first growing fuel forests, they would be able to see to the careful planting, nurturing and maturing of timber forests.

In the better situation which prevailed in 1975, the county committee again organized the commune members in large-scale afforestation and carried out "simultaneous development of three forest types": i.e., forests for fuel, for timber, and for income.

In the aftermath of the fall of the "gang of four," having put into practice step by step the farm village economic policies, and set up systems for building and protecting forests, their trees' growth was even better. At present the entire county is blanketed with 108,000 mu of forests, more

than 30,000 mu of orange, tangerine, and other fruit trees, and 7.4 million trees of the variety *Pawlonia imperialis* [3133 2717].

Last year when Ziyang County experienced a particularly serious drought, losses were somewhat lighter than predicted because the regulation regarding the trees had taken effect. When the peasants saw the actual effects, their belief in afforestation was strengthened. At present the area of the commune members' nurseries exceeds 4,000 mu, with approximately 280 million saplings, and this year they are making preparations for development of afforestation activities on an even greater scale. Several commune teams have devised plans by which they would reach self-sufficiency in timber after 20 years, and moreover would use all of their fuel forests for fuel and use the refuse from the fruit orchards for feed or for plowing back into the fields.

#### Editor's Note

Beijing RENMIN RIBAO in Chinese 1 Jan 80 p 2

[Editor's note: "In Afforestation the Masses Must Be Remembered"]

[Text] Why is it that in quite a few places, "trees are planted every year but never a forest is seen?" One important reason is that the masses have trouble in acquiring firewood and there has been no suitable resolution of this situation. Ziyang County, Sichuan, organized commune members in first building up fuel forests, thus resolving their firewood problem. This, with the phenomenon of an effective curb on random tree cutting, caused a rapid change in the aspect of "trees planted every year but never a forest is seen."

Ziyang's experience lies not solely in the method of "in afforestation first build up fuel forests" which they advanced, but also in their attitude toward work, wherein their feet are planted on solid ground. The situation of "trees planted every year but never a forest is seen" does not occur only in Ziyang; there are many regions throughout the country which suffer from this problem. There are many places which turn green each year only to again turn brown each year. Due to this, even though it has been shouted about for 20 to 30 years, the factor of forest cover throughout the country is merely a little over 12 percent. The causes are numerous, and situations such as those in Ziyang are widespread. When the masses are having difficulty, and one does not help them out of it, they can only attempt to find a way out themselves. A forest is planted, they destroy the forest, to the extent that that which is planted doesn't equal as much as that which is destroyed. If this is the way it is, what's the use of talking about turning every place "green?"

We hope that those places where "trees are planted every year but never a forest is seen" will study Ziyang, make self-comparisons, search out the



causes, and come up with some methodologies. Naturally, in afforestation it is not always mandatory to first build up a fuel forest. In several places there have been very good results working from a system of job responsibility. In short, this avoiding of general party appeals, ignoring the economic results and failing to act to resolve the practical difficulties of the masses is the kind of workstyle which must be changed.

### Planting Barren Slopes

Beijing RENMIN RIBAO in Chinese 1 Jan 80 p 2

[Letter from Yan Zhaowu [3601 3564 2976] and Wu Kemin [0702 0344 2404] of the Meng County, Henan, People's Broadcasting Station: "Is Taking the Barren Slopes and Turning Them Over to Commune Members for Afforestation in Conformance with Policy?"]

[Text] Comrade Editors:

On a news-gathering visit to the countryside, we discovered several teams taking barren slopes and turning them over to commune members for tree planting and management. This method is a very effective one. However, there are several people who say that this method is going a step backward. Because of this we are writing this letter to you and ask that you advise us: is (this method) or is it not in conformance with the spirit of Central Committee policy?

The situation is like this: in the western part of our country there is range after range of mountain ridges crisscrossed by ravines, and the area covered by barren slopes and bare ridges is very great. There is great "latent capacity" here for afforestation. But owing to the interference and destruction wrought by Lin Biao and the "gang of four," each year after a single burst of tree planting there was no one to take care of the trees. The result was that trees were planted but no trees were ever seen; afforestation was begun but no forest ever appeared. Last year, after two agricultural directives were promulgated by the Central Committee, the party branch of the Yuangou Brigade, Shizhuang Commune, became aware of the lesson inherent in the fact that for many years this brigade had planted trees which never matured. They decided to take the untilled acreage contained on six ridges and 11 barren slopes and turn it over to the commune members. The brigade united to supply saplings and the commune members themselves assumed the responsibility for planting and management. Once the trees matured, each person in the group was to receive 30 shares on a 30-70 basis. As soon as this plan was announced to the masses, the commune members expressed their agreement in unison and their zeal for tree planting was advanced to an unprecedented height. During the single spring season they planted more than 18,000 saplings, corresponding approximately to the total for the preceding 10 years. The survival rate was greater than 80 percent, and half of the brigade's bare ridges and barren slopes had "turned to green."

Before the winter tree-planting season arrived, the party branch of this brigade summed up experiences, and approved this plan as being effective. They furthermore communicated with organizations concerned to place purchase orders for saplings, and made individual planting assignments for the people, some of whom were already using free time to dig holes. The broad commune membership happily asserted that, "this method is good; in doing it this way not too many years will pass before our barren hills and bare ridges will become 'lushly vegetated hills.'"

At present, throughout the county there are many ditches and slopes which lie in waste. Why can't they be taken care of in the manner used by the Yuangou Brigade? Some cadres say, "we don't dare."

We hold that the spirit of the two Central Committee documents on the development of agriculture is clear: only if there is advantageous strengthening of a collective economy, and advantageous bringing into play of enthusiasm for socialism of the broad commune membership, can production organizations conform to actual conditions and formulate feasible methods. If the whole country operated in a way similar to that of the Yuangou Brigade, suiting measures to local conditions and adopting realistic measures, the speed by which afforestation is accomplished would greatly increase. How can this be said to be "backward?"

#### Greening of Slopes Urged

Beijing RENIM RIBAO in Chinese 1 Jan 80 p 2

[Letter from editor in reply to preceding item: "A Good Method for Greening the Barren Hills"]

[Text] Comrades Yan Zhaowu and Wu Kemin:

This method of the Yuangou Brigade is a good one for promoting afforestation work by the masses and speeding up the "greening" of the barren hills. It is advantageous to the state, the collective, and the individual. It is progressive, not backward.

The socialist distribution principle is, "from each according to his ability, to each according to his labor." The hills are the property of the state, and saplings are supplied by the collective. The commune members exert effort for afforestation, forest management and forest protection, and are paid a fixed remuneration, all of which conforms to policy. The Yuangou Brigade distributes a 30 percent share as income for commune members working in afforestation; this is one way to pay a salary which is above criticism.

There are many barren hills and ridges in our nation and "greening" is deficient, with a very low rate of forest coverage. If they are "greened" at the fastest rate not only can a major amount of lumber be gained, but

soil erosion can be controlled, ecological balance maintained, and the development of agriculture and stock-raising advanced.

Of course, our nation is large, circumstances are complicated, and for the development of the forestry industry measures which are suited to local conditions must be used, with various efficacious methods being selected. The method used by the Yuangou Brigade is one of these. The Ministry of Forestry believes this method to be good and it should be promoted in a timely fashion.

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CSO: 4007

'RENMIN RIBAO' STRESSES FARM MACHINERY MANAGEMENT

HK100824 Beijing RENMIN RIBAO in Chinese 18 Mar 80 p 1 HK

[Article by commentator: "It Is Essential To Attach Importance to Farm Machinery Management"]

[Text] The number of farm machines in our country is gradually increasing, with the total motive power of farm machinery already amounting to 160 million horse power. There are now over 2 million tractors of large, medium and small sizes, over 5 million power-operated drainage and irrigation machines and over 3 million processing machines for grain, cotton and oil crops. Following the increase of farm machinery, we already possess a farm machinery force of several million people, which is a very important production force. Nowadays, while we are marching towards agricultural modernization, we must attach great importance to and strengthen farm machinery management, and bring its power into full play.

In the past few years, farm machinery has played a very important role in the ceaseless promotion of agricultural production. In the struggle against drought in 1978, Jiangsu, Hubei, Anhui and eight other provinces put to work over 21 million horse power of diesel motors and 10 million kwh of power generators. This served to draw and lift over 170 billion cubic meters of water, equivalent to the total flow of the Huanghe for 3 years. The role of farm machinery is still more apparent in the aspects of racing against time and insuring the farming seasons. Agricultural activities are very intensive in the "crash reaping and sowing" in the south and in the "three summer farm tasks" in the north. However, thanks to putting to work a great deal of farm machinery, the competition for manpower between harvesting, planting and field management is solved. Generally, it takes more than a month's time to carry out spring sowing in the north-eastern districts. However, in Jilin's Yushu County, spring sowing is completed in half a month's time since the standard of mechanization is high there and a great deal of farm machinery is employed in spring sowing. Farm mechanization is also advantageous for carrying out intensive cultivation. In many places, farm machinery is employed in seed selection, sowing, applying fertilizer and chemicals and irrigation. The work is done with accuracy and care. Numerous facts prove that farm machinery is playing a more and more important

role in speeding up agricultural production and diversification, developing commune and brigade enterprises, enlivening the rural economy and enriching the peasants.

It is necessary to attach very great importance to farm machinery management now in order to further bring its role into play. During the past 3 years and more since the smashing of the "gang of four," all places have been gradually reviving the rules and regulations which had been sabotaged. They have initially rectified the farm machinery force and a number of advanced models who are good at managing and operating farm machinery have appeared. However, speaking with regard to the entire farm machinery front, farm machinery management is still a very weak cardinal link. The most outstanding problems are that the technological and management standards are low and there is a great difference between the advanced and the backward. For instance, in some places, the percentage of farm machinery in good condition is over 90, but in some other places, it is still between 50 to 60. In some places, the operating capacity of tractors amounts to 300 to 400 standard mu per horse power, but in a lot of other places, it is still under 100 standard mu per horse power. The total amount of the three production costs per mechanized standard mu (fuel, maintenance and management) is about 0.3 to 0.4 yuan in some places, while in others it exceeds 1 yuan. In some places, tractors only consume half a kg of oil per standard mu, but in some others, consumption is over 1 kg. The difference means the potential. Let us make a calculation: If the percentage of tractors of large, medium and small size throughout the county in good condition is raised by 10 plus from the current 70, it would be equivalent to an increase of several thousand tractors throughout the country, and approximately equivalent to 2 years' production of the Luoyang tractor plant. We can see that there are very great potentials in strengthening management of farm machinery, and we must make more efforts in "management."

In the early 1950's, there was a small number of farm machines. The management of farm machinery was mainly carried out by means of state-run stations. The number of farm machines has enormously increased now and the majority of them are collectively run by communes and brigades. The rural people's communes must continue steadily carrying out the system of three-level ownership by the commune, the production brigade and the production team, with the production team as the basic accounting unit, and implement various production responsibility systems. This will bring many new conditions and ceaseless new problems in farm machinery management. We must deeply study the new problems and sum up new experiences. Farm machinery management is a branch of learning. Leading cadres at all levels must strengthen learning and seriously study economics, technology and management according to the demands of the party and strive to become experts in farm machinery management. Lenin once said: Each kind of management work needs special skills. Some people have the ability to be a powerful revolutionary and agitator, but are completely unsuited to be management personnel. All people familiar with actual life and experience know: In order to handle management work, it is necessary to be expert, to be proficient in all

conditions of production, to know modern advanced production technique and to have scientific accomplishment. These are the conditions that we should possess under all circumstances. (Adapted from "Collected Works of Lenin" Chapter 30, p 394, "Speech Delivered at the 3d Congress of National Watertransport Workers of Russia")

Party committees at all levels must implement the spirit of the fifth plenum, strengthen the building of the farm machinery force and strengthen leadership over farm machinery management according to the demands of modernization. Some leading cadres have been used to leading agriculture with the ideology and habits of small-scale peasant economy for a long period of time and they are not good at promoting production by organizing and employing modern farm machinery. This situation must be changed as soon as possible. We must include farm machinery management in the sphere of management of the whole of agriculture and grasp it well. At the same time, we must seriously implement relevant policies in the farm machinery management departments, fully mobilize the activism of all farm machinery personnel, be concerned about their work and daily life, set up and put on a sound basis the structure of farm machinery management, seriously do well in supply, maintenance and other services for farm machinery and raise the standard of farm machinery management to a new level.

CSO: 4007



## NEW ECONOMIC MEASURES FOR FISHERY PRODUCTION URGED

Beijing JINGJI YANJIU in Chinese No 12, 1979 pp 52-58

[Article by Wei Fengyan [7279 2800 3508], Wang Songpei [3769 2646 7198] and He Hongquan [0149 1347 2938]: "Readjust and Restructure Economic Relationships To Develop Fishing Industry Production"]

[Excerpts] Since 1979 the focus of all party work has been shifted to socialist modernized construction. In its "Resolution on Various Questions Pertaining to the Hastening of the Development of Agriculture," the Party Central Committee pointed out that there must be a correct and thorough implementation of the policies of "simultaneous development of agriculture, forestry, livestock raising, sideline occupations, and fisheries," and of "taking grain as the key link, all-round development, suiting measures to local situations, and appropriate centralization." The overall task of the new era has placed higher demands on the development of our country's agriculture, and it has placed even higher demands on the development of our country's fishing industry.

Following liberation in the 1950's, development of our country's fishing industry production was very rapid. During the 3 years of recovery, production of aquatic products increased 3.7 times; during the period of the First Five Year Plan, annual average increase was 13.3 percent. Subsequently it tapered off. The severe disturbance caused by the extreme leftist line of Lin Biao and the "gang of four" caused great havoc in production in our country's fishing industry. Shortcomings and mistakes in our own work also adversely affected the development of production in the fishing industry. On the basis of statistical data for the past several years, the average per capita amount of aquatic products in our country lags far behind that of countries with advanced fishing industries. For example, average annual per capita production of aquatic products in Norway amounts to 1268.6 jin, in Japan 189.2 jin, and in our own country only 10 jin, which places it in the 100th position in the world. Average annual labor productivity for persons engaged in the fishing industry in Norway is 69.3 tons of aquatic products; in the United States, it is 21 tons; in Japan 17.1 tons, and in our country only about 2 tons. The productivity rate in our country's fishing industry is

presently low, output is low, and the commodity rate is also low. Current prominent problems in the fishing area are as follows: aquatic product resources have been severely damaged; development of artificial fish hatching has been slow; quality of aquatic products is poor and losses from putrefaction are great; economic policies for the fishing industry have not been carried out; and the enthusiasm of the broad masses of fisherfolk has not yet been brought into full play. In quantity, quality, and variety, our country's aquatic products are still a long way from being able to satisfy either the requirements of the cities and the countryside for food or the requirements of national economic development.

The crux of accelerated development of the fishing industry lies in modernization of production in the fishing industry. Comrade Hua Guofeng pointed out in his "Government Work Report," delivered to the Second Session of the Fifth National People's Congress, that the diligent readjustment, restructuring, consolidation, and improvement of the national economy is the first campaign in the implementation of the four modernizations. Implementation of modernization in the fishing industry also requires diligent adherence to the eight point policy. In order to restructure irrational management methods, a rational organization of each of the factors in the productivity of the fishing industry must be carried out. Only in this way will it be possible to put the modernization of our country's fishing industry on a solid foundation in order to move forward.

Vigorous development of our country's breeding of aquatic products currently requires that we do a truly good job of building a foundation for the fishing industry on the basis of the distribution of aquatic resources. The state should engage in the planned building of a group of commercial fishing bases, master fish as a product, and satisfy demand. Each province, municipality, and autonomous region should also build a group of commercial fish bases principally for the purpose of satisfying local demand in local areas, municipalities, and industrial and mining areas. Each large and medium-size city should also continue to develop suburban fish breeding so as to solve locally the problem of fresh fish for urban dwellers to eat. Counties, communes, and production brigades should also operate their own hatcheries so as to be able to supply fish locally for consumption by urbanites and townsmen, themselves eating the fish they have grown. While operating hatchery bases, they must muster and rely on the masses so that every body of water and every beach that is suitable for raising fish will be put to full use. From Hubei Province has come a proposal that each production brigade keep a "master pond" to solve the problem of fish for consumption by commune members. This is a good method. We have to use all kinds of methods to make equitable use of all aquatic resources, to fully arouse enthusiasm for raising fish, and to vigorously go about raising aquatic products. There is a great potential in our country for development of the breeding of aquatic products. Statistics show that there are 7.4 million mu of shallow seas and beaches along the seacoast of our country where artificial hatcheries could be established. At present, however, ocean hatching makes use of less than one-third of



this area, and freshwater hatching uses only slightly more than half the available area. In some places the area of water is equal to the cultivated area of a county, but no one has bothered about a fishing industry in these places for a long time. If there is a mu of barren land, something is done about it right away, but when there are 10,000 mu of barren water, one becomes so accustomed to looking at it that he no longer sees it. If we can put these waters to full use and energetically develop the breeding of aquatic products, the picture of the fishing industry in our country will change vastly.

It is essential that there be a readjustment in the economic relationships of the fishing industry with visible material benefits being given to fisherfolk, and the broad masses of fisherfolk's enthusiasm must be fully aroused.

The broad masses of fisherfolk and farmers are mainstays in the development of the fishing industry, and giving fullest play to their enthusiasm is basic to the rapid development of production in the fishing industry. For a period of time, however, because of the pursuit of an extreme leftist line by Lin Biao and the "gang of four," the broad masses of fisherfolk suffered political oppression and economic exploitation, which seriously dampened their enthusiasm for socialism. When some problems in our own administration of the fishing industry were added to this, fishing industry resources were damaged. Materials required by the fisherfolk were shoddy in quality and high in price; management and administration were not good, and various levels of numerous units apportioned tasks to them without remuneration, and allocated and transferred funds to create a situation in which communes and brigades in the fishing industry were faced with high costs, low income, and excessively heavy burdens. The collective economy of the fishing industry was extremely weak, with numerous communes and brigades in the fishing industry owing debts piled on debts. In some prefectures, the average per capita loan owed to the state by the fishing industry was more than 800 yuan. In some communes and brigades in the fishing industry, the amount of loans outstanding even exceeded the total value of all their fixed assets. Awash in a difficult situation in which their labors could not clear their debts, the enthusiasm of the broad masses of fisherfolk was seriously damaged.

Marxism holds that the workers' source of enthusiasm lies in definite material benefits. Marx said, "The reason people struggle for anything is related to their own welfare."<sup>1</sup>) At present, the crux of rapid restoration and further budding of enthusiasm among the broad masses of fisherfolk lies in adherence to a series of economic policies of the party for the fishing industry which will rehabilitate the fisherfolk and which will, through the development of production, make the several million fisherfolk gradually become prosperous.

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1) Marx: "Debate at the Sixth Session of the Rhine Council (1st Article)," "Complete Works of Marx" Vol 1 p 82.

The ownership system is the foundation of production relationships. Respect for the collective ownership of communes and brigades is the first problem that has to be conscientiously addressed in arousing the enthusiasm of the broad masses of fisherfolk. Among the three levels of the system of ownership currently prevailing in our country, in most the production brigades there are the basic accounting units. This system is suited to the characteristics of fishing industry production and to the development of the level of production at the present stage in our country. It should be actively consolidated and stabilized over the long term, and no action should be taken carelessly to implement "transitions"; otherwise, damage will be done to the welfare of the broad masses of fisherfolk, and that will adversely affect production in the fishing industry. We recognize the collective economy of the fishing industry, and so it is necessary to respect the right of ownership by communes and brigades over their lands, beaches, waters, labor force, fishing boats, fishing gear, fishing industry equipment and facilities, capital, material goods, and products. No unit or individual may allocate or appropriate them for use without remuneration. Furthermore, the production autonomy of communes and brigades in the fishing industry must also be sincerely respected, and blind direction to them must be opposed.

"From each according to his ability and to each according to his work" is a principle of socialist distribution, and it is also an important economic policy of the party in rural villages. In recent years the experience of numerous fishing communes and brigades has demonstrated that once the damage and disruption of Lin Biao and the "gang of four" had been eliminated and the principle of "from each according to his ability and to each according to his work" implemented, the reaction, in the form of an arousal of enthusiasm among the broad masses of fisherfolk, became extremely clear. Conscientious adherence to this principle, stronger supervision of quotas for fishing communes and brigades, and the building and perfecting of a system of rewards and punishment, implementation of the principle of equal pay for equal work for males and females, and determined overcoming of egalitarian tendencies can revive the former universally prevailing system of the "three fixes and two rewards," and can also gain mass support for other effective management systems and methods and arouse the enthusiasm of the broad masses of fisherfolk.

Current implementation of economic policies for the fishing industry poses many problems, with economic theories requiring study. The problem of the law of value is one example. One important characteristic of production in the fishing industry is a very high commodity rate. Therefore, conscious use of the functioning of the law of value and institution of reasonable pricing policies are key links in arousing the enthusiasm of the broad masses of the fisherfolk and in promoting the rapid development of fishery production. There has been a definite increase in the prices of our country's aquatic products since liberation; this increase has not, however, been rapid. For a long time the prices of some aquatic products

have not matched, in the same measure as with grain prices, the changes that have taken place in production costs. Now the State Council has passed a resolution providing for an increase in the price at which aquatic products are purchased by the state that is commensurate with rises in prices at which state purchases of grain are made. Our pricing policies should assure that enterprises as well as persons engaged in fishing receive the income they deserve. We also have to study constantly the rate of price rises for aquatic products and gradually determine suitable price ratios in order to give fullest play to the law of value in promoting production in the fishing industry.

In giving play to the law of value in the production of the fishing industry, it is necessary also to give attention to the formulation of reasonable price differences for aquatic products. Currently, in some places in our country, there is no reasonable price difference for different varieties of things. The state purchase price for some of the finest quality catches of the sea is no more than double that for miscellaneous fish. The price at which shad, mandarin fish, and blunt-snout bream are purchased is about the same as the price paid for black carp, grass carp, and common carp. This adversely affects production of fine quality fish. Meanwhile, the difference in the price paid for large and small fish is not equitable, either. The price for small and young fish tends to be high, so careless fishermen are indiscriminate about their catches, thereby damaging the resources of the fishing industry. There are also problems in the price differential for freshness. In many places the price differential does not make sufficient distinctions among fresh fish and live fresh fish, fresh and not so fresh, and freshly salted fish. A large amount of many varieties of fish are salted for sale with a decline in quality of the product. This has to be studied and improved upon.

While giving play to the law of value and providing farmers with material benefits that they can see, we also have to establish an equitable ratio between the amount of aquatic products to be purchased by the state and the amount to be retained by the fishermen. Just how much of the total catch will be taken by the state, and how much will be left for members of the communes and brigades, is an exceedingly important question in the proper handling of the relationship among the state, the collectives, and the commune members, and in arousing the enthusiasm of the broad masses of fisherfolk. During the past several years of disturbances and damage caused by the extreme leftist line of Lin Biao and the "gang of four," the former equitable and effective ratios between requisition purchases and amounts retained were destroyed. "Leave three" and "leave five" were criticized as capitalistic, and this seriously hurt production by the brigades and communes of the fishing industry as well as the livelihood of the broad masses of fisherfolk. There must be a revival of an equitable ratio between state requisition purchases and the amount left, and a contract system has to be instituted with the ratios put into effect.

A combination of requisition purchase and negotiated purchase methods must be implemented that reflect a combination of planned adjustments and

market adjustments. Use of the principle for the most part of planned adjustments is a powerful measure for giving play to the law of value and promoting production in the fishing industry. These methods may be used by supply and marketing units and production units to enter into contracts for their aquatic products. Aquatic products remaining after requisition purchases have been completed can be disposed of by basic accounting units as they see fit, or else they may be purchased by the state at a negotiated price. Through institution of these methods, both the collective and individual income of commune members can be increased, with benefits for the promotion of increased production by the fishing industry, improvement in the quality of fish, and improvement in market supply. Some units who have tried them have had remarkable results.

To readjust and restructure the economic relationships and the management system of the fishing industry, it is necessary to change the disjointed situation existing in the production, processing, and marketing of aquatic products, and to follow the road of fisheries as combined industrial and commercial enterprises.

In the system of management of production, supply, and marketing now prevailing in the fishing industry, there is a disjointed situation as regards catching the fish, processing them, turning out a product, and buying and selling them. This adversely affects the development of production in the fishing industry. The situation in Zhoushan Prefecture is a good example. Commune and brigade fishing industries have virtually completed motorizing their fishing boats, but in handling the catches they still follow the old methods of the past. Whereas the state uses boats carrying ice to go out to sea to purchase fish, the communes and brigades have no facilities for making ice or for cold storage, and only 1 out of 10 of their boats carries ice. Communes and brigades cannot process a large part of their fish catches in a timely manner, and every year much of it rots or deteriorates in quality on the way back to port and can only be dumped back into the sea. Because of deterioration in quality, 100 million jin was fit for use only as fertilizer, and another 200 million jin had to be processed into salted fish, sun-dried, or ground into fish powder. Less than half of the fish caught could be sent elsewhere. Zhoushan Prefecture annually supplies Beijing, Tianjin, and Shanghai with fish products through state purchases and transfers of its marine products. Most of it is sent to the first rank station in Shanghai, from where it is distributed. When the busy season is at its peak, large numbers of boats, their fish packed in ice, frequently fill the harbor, and fish catches cannot be unloaded. Neither can the ice be replenished. The boats cannot go back to do more fishing, and a large portion of the fish are lost through rotting. At the same time, these methods of concentrating in Shanghai harbor to make transfers increases the already numerous transfer links. Between production and consumption lies a total of eight different links, with the freshly caught fish going to a boat carrying ice, then to a larger ship, to the harbor for unloading, to transportation by truck, to transportation by train, to freezing in the marketing area,



and to the market for sale. Because of the numerous times that fish catches have to be transferred and transported, their quality greatly declines, losses mount, and more circulating capital is expended, causing a decline in the income of producers, losses for purchasing units, and some unpleasant thoughts from consumers. Such a system of purchasing and marketing, moreover, cannot assure a timely market supply. In order to be able to supply the market with more aquatic products in a timely fashion, the Beijing Municipal Aquatic Products Company annually rents a ship carrying ice and sends it southward along the seacoast to each province to buy fish catches. Sometimes the ice melts along the way, and quite a few fish cannot be processed rapidly enough for freezing. This causes a loss in their quality, and in the end they can only be sold at a reduced price. These factors, plus other causes, result in annual losses in excess of 21 million yuan. Authorities concerned in our country estimate that more than 400,000 tons of aquatic products are lost annually through rotting because they cannot be either processed rapidly enough or brought to market, or for other reasons.

Rapid growth of production in the fishing industry requires attention to the quantity of aquatic products, but it also requires attention to the quality of aquatic products as well. Marx said, "Nothing can be of value unless it is a useful thing. If a thing is useless, the labor it contains is also useless and cannot be considered as being labor; thus no value is formed from it."<sup>1</sup>) Four hundred thousand tons of aquatic products lost in 1 year through rotting is an astounding figure. These aquatic products whose value is equal to zero cannot be considered as labor and cannot form value; nevertheless they enter calculations as yields. But they are actually yields that do not exist. They can only create a waste of the means of production and of the labor force, with no benefit for socialist economic construction. The quality of aquatic products is currently a major issue in the fishing industry of our country. The All-China Aquatic Products Work Conference, convened at the beginning of the year by the State Aquatic Products Bureau, named this issue, vigorous efforts to preserve fishing industry resources, and active development of marine and fresh water fish hatcheries, as matters of equal importance in the fish industry requiring urgent solution. There is, of course, more than one reason for the current problems with the quality of aquatic products. Our country's processing technology and its methods of keeping fish fresh are out of date, and equipment is inadequate. These are all reasons, but many serious shortcomings also exist in the system of economic management of the fishing industry, and this is the most important reason. The objects of production in the fishing industry are fresh, living, aquatic animals and plants, and keeping them fresh or keeping them alive characterizes the work of production, processing, buying, and marketing in the fishing industry. The battle line in production in the fishing industry is a long one; operations are scattered; mobility is great; and timely processing, rapid movement and marketing, preservation of freshness, and keeping the catch alive are all pressing requirements. However, the system of economic management of the fishing industry in our country is a system in

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1) Marx, "Das Kapital," Vol 1 p 54.

which the production of aquatic products, their processing, and their transportation and marketing are separate and independent. Each segment is administered by its own units and is under their total control. There can be no direct unified planning, there is no close dovetailing, coordination is not done in a timely fashion, and readjustments are not carried out with alacrity. Considering that under these management systems there is every incentive to look after only the welfare of one's own unit, and that cases of mutual obstruction occur, a disjointed situation is created in catching, processing, producing, procuring, and marketing. During the decades of the 1950's and 1960's, some of the world's agriculturally advanced countries, in which agricultural production has gradually become modernized, have advocated a strengthening of cooperation among sectors and the institution of unified administration requirements for agriculture, industry, and commerce. At the present time, neither the level of specialization of our country's fishing industry nor the level of socialization is very high, but doubtlessly the unified management of fishing, industry, and commerce is the future direction which management of the fishing industry will take in our country. Institution of a combined system of administration for fishing, industry, and commerce could greatly reduce the number of times fish catches are transferred from one boat to another, and it could result in the timely processing and handling of the fish, which would be helpful in maintaining their freshness and quality. It could reduce as well the numerous transportation links, reduce various circulating capital expenses, and reduce the burden placed on the consumers. Institution of such a system could also achieve a unity between production and marketing, in which the fishermen who produce the fish and the boatmen who transport and market them would have a common material interest and would thus be concerned with each other's activities. It would consequently be possible to initiate coordination, mutual support, promotion of production, and promotion of supply and marketing. At the present time the economic strength of most communes and brigades in the fishing industry is extremely weak; yet modernization of the fishing industry will require huge amounts of capital. By instituting a combination of fishing, industry, and commerce, with initial processing and some of the transportation and marketing being done by the communes and brigades, a greater portion of income would accrue to the communes and brigades. This would help the broad masses of communes and brigades and fisherfolk recuperate, increase their reserves, and enlarge their capabilities for further production. It would lay a firmer foundation for the rapid realization of modernization of the fishing industry.

9432

CSO: 4007

BRIEFS

WOOL PROCUREMENT FOR 1979--Over 305 million jin of wool were collected as taxation or purchased by the state in China in 1979, overfulfilling the procurement plan by 10 percent, or an increase of 7 percent over that of 1978. [Beijing RENMIN RIBAO 25 Mar 80 p 5]

SOIL EROSION--The total area of soil erosion in China has expanded to 1.5 million square kilometers, with an annual loss of more than 5 billion tons of soil and 40 million tons of nitrogen, phosphorus and potassium. The silt from the Huanghe and Changjiang rivers alone has turned the water in an area measuring 800 li long and 320 li wide along the Chinese coast into yellow muddy water. Along the wind-drift sand belt in the north, some 20 million mu of land have been changed to sandy land annually since the beginning of the 1960s, and large plots of farmland and pastures have been swallowed by the desert. The weather and hydrological conditions in many localities also have badly deteriorated. Some former rainy areas have had droughts two out of three years. [Beijing GUANGMING RIBAO 11 Mar 80 p 1]

MORE DRAFT ANIMALS RAISED--Beijing, 5 Apr--Xinan County of Henan Province has by now raised approximately 38,000 head of draft animals, of which some 4,000 heads were raised privately by commune households. Draft animals were increased by 5,200 head in Xinan County last year. Commune households in the hilly county of Anfu, Jiangxi, last year raised some 11,000 head of cattle, or an increase of 27 percent over 1978. Thanks to household raising, the county last year provided local communes with 3,000 farm oxen and delivered 4,500 head of farm oxen to other parts of Jiangxi and Hunan and Guangdong. [Beijing XINHUA Domestic Service in Chinese 0701 GMT 5 Apr 80 OW]

CSO: 4007

ANHUI

BRIEFS

JIASHAN COUNTY FIELD MANAGEMENT--As of now, Jiashan County, Anhui, has applied additional fertilizer to 380,000 mu of wheat and strengthened the management of 300,000 mu of spring crop fields. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 3 Apr 80 OW]

CSO: 4007



GANSU

BRIEFS

ANIMAL HUSBANDRY--Grain output dropped a little due to natural disasters last year in Qingyang Prefecture, Gansu, but animal husbandry prospered. The number of sheep reached 1.8 million in 1979, an increase of 12.5 percent over 1978; draft animals increased from 300,000 to more than 346,000 head in 1979. The number of hogs dropped slightly, but quality was greatly improved. [Beijing XINHUA Domestic Service in Chinese 0701 GMT 1 Apr 80 OW]

CSO: 4007

NANHAI COUNTY'S FARMING BREAKTHROUGH COMMENDED

Guangzhou NANFANG RIBAO in Chinese 20 Feb 80 p 1

[Article by staff commentator: "We Endorse This Emulous Endeavor"]

[Text] Ever since we rejoiced at the encouraging news that Nanhai County will strive for a new breakthrough in industrial and sideline production this year, their fighting spirit has caressed our faces as the broad masses of cadres and people march forward in the flush of victory.

At a recent meeting of secretaries of the prefectural party committee, the Guangdong provincial party committee called on the cadres and people of the entire province to advance with full confidence along the crest of victory to strive for an all-round bumper harvest during the first year of the eighties. The primary task at present is to do well in spring farming in striving for a rich harvest of early crops. The experience of Nanhai County and various places across the province has proven that this call of the provincial party committee reflects the aspiration of the masses. With gigantic successes won and a rosy tomorrow in sight, the cadres and people of Nanhai County continue to shun complacency and impetuosity as they zealously proceed to strive for new victories. Their mental outlook is very good and really praiseworthy.

The eighties is a crucial decade to the cause of the four modernizations of our great motherland, and not a single day is to be lost. We must make solid progress every day. As we all know, the supremacy of China's socialist system and the strength of our party's line, principles, and policies must be manifested in many aspects and, above all, in the rate and effect of economic development. As long as we make new advances each day in economic construction, we will be able to build our confidence on a firm material base with ever-increasing zeal as we stride forward. It seems that the comrades in Nanhai County understand this. They certainly are not talking big or nonsense when they claim to be sure of realizing a new agricultural breakthrough this year. This year they are taking last year's achievements as new starting points in their steady advance toward more solid progress with greater vigor. Just look: they have already stocked up a larger quantity of sludge for this year's early crops; seeds of Chinese milk vetch have

been sown to additional 20,000-odd mu of land; special efforts are being made to grow lots of American red duckweed; huge amounts of chemical fertilizer have already been delivered to various teams and brigades; they have already prepared enough concentrated feed for pig raising to be developed by commune members at their urging; they have done the groundwork to insure extensive use of improved varieties; and they have implemented plans to develop farming, animal husbandry and commune-run and brigade-run enterprises. Only 50 days have passed since we entered the eighties, but isn't it true that people have already seen certain signs pointing a new breakthrough in Nanhai County? We hope that all the places across the province will be able to greet the first spring of the eighties with solid action and that signs of new breakthroughs will emerge everywhere.

In Nanhai County we can see not only the confidence of several leading cadres in gaining a new breakthrough, but also the lofty aims and enthusiasm displayed by the broad masses of cadres and people. This is the main reason for such a good start across the county as it begins its work this year. This is also the result of a strengthening of ideological/political orientation by this county's comrades, through further emancipation of the mind and implementation of the party's policies. In view of the peasant masses' worry about possible policy changes based on largely increased income, the [cadres] have initiated lively celebrations on getting richer to more effectively free the peasants' mind of apprehensions, thus causing them to truly believe that the series of rural policies formulated at the Third Plenary Session of the 11th Party Central Committee are to be consistently practiced on a long-term basis. Taking into account the masses' views all over the county and the excellent situation under which everyone wants wealth, they have summarized experiences and identified discrepancies; and, in line with local conditions while particularly emphasizing the goal of simultaneously raising grain production, they have taken further steps to carry out the principle of developing farming, industrial, and sideline enterprises, to practice various forms of the "system of fixed responsibility in production," to implement the policy of distribution "to each according to his work," and to adhere to the policy of "limited freedom" under the great collectivism so as to make sure that the collective economy will be rapidly strengthened through the combined efforts of the collective and the individuals. Besides, party policies must be followed if we intend to improve farming this year. But in implementing policies, we should not commit ourselves to meeting general calls, nor should we indulge in empty talk; we must conduct serious investigations and studies, while knowing how to remove obstructions. We hope that people in various places will be able to carry out a concrete analysis of specific local conditions, to integrate ideological/political education closely with economic development, to link themselves closely with the actual local conditions, to maintain a clear-cut stand in implementing the party's policies, and to vitalize the economy so as to greatly enhance the confidence and initiative of the broad masses of cadres and people toward agricultural development.

Science and technology are part of the productive forces. Vigorous action must be taken to extend the application of agricultural science and farming

techniques in the production of rice as well as industrial crops, on the basis of our implementation of the party's policies in fully mobilizing the enthusiasm of the masses. Great emphasis should also be placed on the extended use of science and technology in forestry, animal husbandry, fisheries as well as commune-run and brigade-run enterprises. In so doing, the initiative of the masses will definitely bring about a greater economic effect in accelerating the development of productive forces. Understanding this significance, the leading cadres in Nanhai County take the lead in receiving lessons from farm technicians as willing pupils, and correctly direct production by conscientiously keeping to objective economic laws. Their guidance has stimulated keen interest across the county in pursuing scientific knowledge, and has convinced the broad masses that science and technology will immensely benefit the collective economy, thus making everyone strive more zealously to raise production this year. This experience of theirs is also worthy of note.

As aptly stated by some secretaries of the prefectural party committee at their recent meeting: "Ever since the Third Plenary Session of the 11th Party Central Committee, the situation has been very good across the province on the one hand; and on the other, discrepancies have been revealed in various places. Wherever the people are further emancipated from old ideas, wherever the policies are more realistically implemented, and wherever scientific farming receives better results, there will be more rapid advances in agriculture and greater improvement in the people's well-being; otherwise there are bound to be setbacks in farming and discontent among the masses." In Nanhai County, the county party committee has mobilized everyone actively to locate the gaps and discrepancies among various communes and brigades. This has resulted in a situation of intense but friendly emulation across the county, and has prompted the less advanced units to strive zealously to catch up with the more advanced.

With the spring ploughing season just arriving, it is now the critical moment to start striving for this year's all-round rich harvests. We hope that commune and brigade members in various places across the province will all humbly and honestly try among themselves to find out where they lag behind, and we hope they will make a more conscientious effort to carry through the principles and policies designed by the Third Plenary Session, to adhere to scientific farming, and to score high in spring farming production, thus laying a foundation of overall bumper harvests for the year.

9442

CSO: 4007

# GUANGDONG EXTOLS SCIENTIFIC HOG RAISING

'NANFANG RIBAO' Commentary

Guangzhou NANFANG RIBAO in Chinese 23 Feb 80 p 1

[Text] Yanbu commune has carried out scientific hog raising, and through improved feed composition and feeding techniques has raised the hog production rate and produced more meat, more fertilizer and more profits. This again demonstrates that hog raising and other agricultural enterprises are characterised by objective laws. All aspects of enterprises, from research on hog physiology to studying their nourishment requirements, from analysis of the chemical composition of various feed elements to the determination of feed mixture ratios as well as other management work, requires scientific knowledge. The people must grasp this scientific knowledge and use it to carry out reforms and pursue benefits while avoiding harm before they will be able to speed up development of their hog raising enterprises.

Careful attention to scientific hog raising requires ideological liberation and elimination of blindness. There are some comrades who have long been content with backwards feeding techniques, content to raise hogs merely for increased fertilizer, not caring at all about the hog production rate or the profit and loss involved. They believe that improving the feed composition and feeding techniques will require increased costs and thus double their losses. This is a one-sided view. On the surface, the expenses for concentrated feed and other features of scientific hog raising do increase costs, however, they are able to raise the live hog sales rate, meat production rate, speed up capital turnover and expand live hog reproduction. In the end this will produce relatively greater economic results. The experience of Yanbu commune and a number of other such places proves that it is through expanded scientific hog raising that increased sales rates and profits are obtained. On the contrary, continued use of old hog feeding techniques or one-sided emphasis on using green fodder without a certain percentage of feed concentrate inevitably results in merely



maintaining the lives of a considerable number of hogs, prolonged fodder consumption and a low sales rate, all of which are major reasons for causing losses. We ought to sincerely sum up the experience of past lessons, see problems in their totality, learn how to handle big accounts, become expert at accepting advanced scientific technology and we ought not to stick to old ways and follow obsolete practices.

The inner links of affairs are complex and there ought to be many ways of solving contradictions. Because of differing locales, differing varieties and because of different conditions, there can be no single method of scientific hog raising. When we study and propagate the experiences of advanced brigades, we ought to suit measures to local conditions, make flexible adaptations, develop local advantageous conditions, be creative and brave in the process of studying and promoting, never operate blindly, and be decisive.

Of course, certain material conditions are prerequisite to promoting scientific hog raising experiences. Mixed variety fodders, for example, require the supply and processing of feed concentrate, the matching of technological strengths, and so on. However, the crux of the matter lies in human effort. If only we can thoroughly follow the policy of to each according to his labor, motivate the positive spirit of the feeding personnel, completely lay bare our production potential, open up fodder resources (including such fodder as potatoes and the like), strengthen brigade building within the feeding personnel and elevate their level of science and technology, then we certainly can carry out scientific hog raising in more and more places.

#### Nanhai County Experience

Guangzhou NANFANG RIBAO in Chinese 23 Feb 80 p 1

[Text] Yanbu commune in Nanhai county advocates scientific hog raising. The improvement of their feed composition and feeding techniques demonstrably raised their live hog sales rate and replaced a deficit with a surplus. Last year this commune's number of hogs raised increases by 4 percent, hogs marketed increased by 10 percent and the hog sales rate reached 75 percent.

The first concrete step of Yanbu commune's scientific hog raising method was to change from a single to a mixed fodder. The components of the mixed fodder are raw bran, ground grains, ground rice husks, wheat husks, ground cassava, corn, ground oyster shells and ground hongni [4767 3136]. When the fodder is ground and mixed the proportions are strictly controlled according to the different varieties of hogs and the nutritional requirements of the different stages of growth. Strict adherence to the designated ratio of starch and protein is beneficial in the growth and fleshing out of hogs. During the process of changing the feed composition they also carried out reforms of

management and feeding methods as follows: irregular feed quantities were changed to fixed feed quantities, two feedings per day was changed to three feedings per day, cooked fodder was changed to raw fodder, and unhygienic methods were made hygienic. These measures enabled the hogs to obtain adequate nourishment according to their physiological needs, avoid extremes of gorging and hunger, easily digest their food and absorb nourishment and reduce the incidence of disease.

Yanbu commune implemented scientific hog raising last year. In the past, many production teams did not use economic accounting, most used a single type of coarse fodder, and as one hog generally requires one year or even longer for marketing, this, in addition to other reasons, often resulted in economic loss. In order to transform these conditions the party committee of the commune resolved to firmly grasp scientific hog raising by studying the scientific hog raising experiences of Chengnan brigade of Huaicheng commune in Xinhui county. They invited experts to come to share their experiences, held technology training classes to train a core group, and moreover had experimental, model operations which were later promoted. By the middle of last year 76 percent of the commune's production teams were carrying out scientific hog raising. Nanyi production team of Liulian brigade had a pen of 10 hogs which they fed for 17 months. Each hog gained an average of 80 jin, which added to their weight as piglets totaled only 100 jin per hog. After 18 days of scientific feeding the average weight of the hogs increased from 100 jin to 129.2 jin. Compared to the average weight of hogs under the old feeding method, each hog had a higher average daily weight increase of from 0.15 jin to 1.6 jin. Jiangnan production team of Hengjin brigade selected 92 thin, old hogs which averaged 98 jin at over 1 1/2 years of age and carried out scientific feeding of these hogs. After 35 days the average weight of these hogs increased to 135 jin. Because of the rapid fattening rate the hogs were sold quicker and so costs decreased and a deficit was changed to a surplus. Last year Yanbu brigade made a profit of over 60,600 yuan, averaging a profit of 13.8 yuan per hog. In this commune, 120 production teams carried out scientific hog raising and not a one of them lost money.

In order to expand scientific hog raising, each production team in this commune reserved sufficient feed grains in the right proportions. The commune also organized the finance department to make outside purchases of feedgrains and also established a commune, brigade and production team feed processing enterprise. At present the communes 12 brigades and a group of production teams have already opened up mixed fodder processing plants and the food grains department has also shouldered certain responsibilities for processing fodder.

'JINGJI YANJIU' DISCUSSES AGRICULTURAL MECHANIZATION

HK150400 Beijing JINGJI YANJIU in Chinese No 2, 20 Feb 80 pp 19-25 HK

[Article by Yan Ruizhen [0917 3843 3791] and Liu Tianfu [0491 1131 4395]: "A Probe Into the Economic Conditions for Agricultural Mechanization--An Investigation Into Luancheng County's Economy Characterized by Agricultural Mechanization"]

[Text] Luancheng County is in Hebei Province's Shijiazhuang Prefecture. It has an agricultural population of 264,000, of which 118,000 are farm laborers. It has 448,000 mu of farmland, with an average of 1.7 mu per capita for the whole agricultural population and an average of 3.8 mu for each laborer. The county is mainly engaged in growing grain and cotton. Over 300,000 mu is devoted to grain production and 130,000 mu to cotton production. Grain production has developed rapidly over the past 7 to 8 years and the county has consequently become one of the country's famous high grain yielding regions. The county is on the Hebei central plain, with good natural conditions for mechanized farming that have been developed rapidly over the past few years. Up to 1977, the county's farm machinery totaled 99,231 h.p. or 0.209 h.p. for each mu. It also used 35.8 kwh electricity for irrigation, 161.4 jin of chemical fertilizer and 7.5 jin of pesticide for each mu of farmland. This county has thus reached a certain degree of technology and equipment in modernizing its agriculture and is stepping up farm mechanization to mechanize all farming this year.

The county's farm mechanization, economy and technology can be taken as a typical example of the agricultural conditions in the regions of the north China plain. Therefore, with regard to the economic conditions for agricultural mechanization, we have investigated the status of the county's agricultural mechanization in promoting production, the problems that arise during mechanization, the economic conditions that determine the pace of mechanization and the arrangements for future agricultural production.

I. To Realize Agricultural Mechanization Is an Objective Demand for Further Developing the County's Agricultural Economy

The county's per unit and total grain output has increased steeply since 1970--an average of 80 percent per year, which is considered a very



high rate. But after 1974, per unit and total agricultural output and the income of the commune members began to fluctuate. There are three main reasons that caused this fluctuation:

First, during the seasonal three summer and three autumn jobs, the county is short of labor power. It has been a common practice every year that when the county "concentrates its efforts to do the summer jobs, it fails to do the autumn jobs well." As a result, the output of autumn crops and cotton decreases which brings about an abnormal situation of "high output in summer and low output in autumn." For example, per unit wheat output has reached as high as almost 600 jin, but per unit output of autumn crops averages only about 300 jin.

Technically speaking, the county has been able to increase grain output drastically over the past few years because it has changed the 2-year triple-cropping system into a 1-year double-cropping system of "wheat--corn." The introduction of the 1-year double-cropping system to the whole cropland was followed by a new problem in production: A shortage of labor power during the seasonal three summer and three autumn jobs.

The main contradictions of the three summer jobs are that while labor power is needed for wheat harvesting and threshing, it is also needed for summer corn sowing and the management of cotton, because all these are seasonal jobs that have to be completed in due time. The county's wheat sowing acreage and the acreage of small plots of early spring crops total 300,000 mu. The county has mechanized threshing but because of the restriction of inter-cropping and interplanting, most harvesting is still done by manual labor, which is also needed for transportation and wheat drying. Thus 4 laborers are needed for each mu. This means that 1.2 million laborers are needed for each mu. This means that 1.2 million laborers are needed for the 300,000 mu. But the total number of laborers in the whole county is only 100,000. Even if the whole labor force is used to get in the harvests quickly, it would have to spend 12 days before completing the work. But according to the local season, if the summer sowing and field management are not to be affected, wheat harvesting and threshing must be finished in 6 to 7 days. Due to shortage of laborers for seasonal jobs, the county is able to do a good job every year in the summer harvests but always delays summer sowing and management. As a result, the increase in the output of summer grain is often offset by decreases in autumn grain and cotton output. This has been the main reason for the county's "two highs and two lows" output (high summer yields and low autumn yields and high grain output and low cotton output).

According to the county's seasonal farm work, the three autumn jobs must be completed before 15 October each year. These jobs include the harvesting of over 300,000 mu of wheat, followed by sending in night soil, irrigation, replot and wheat sowing (particularly interplanting wheat and cotton which requires peasants to carry seedlings in baskets on their backs and turn the soil with spades). These seasonal jobs cannot be delayed. If the sowing work is delayed by 1 day, per mu yield will then decrease by 20 jin.

In fact, the county completes sowing jobs on 20 October every year because of labor shortage. The sowing in about 60,000-70,000 mu cropland cannot be finished in due time which results in bad seedlings. To change the abnormal situation of "two highs and two lows" output and put an end to the fluctuating grain output it is imperative to mechanize wheat and corn harvesting, sowing and transportation.

Second, the threat of drought, excessive rain and plant diseases in agricultural production remain a big obstacle for high and stable yields.

After a long period of reform work, 440,000 mu of farmland in Luancheng County can now resist ordinary drought, excessive rain and plant diseases and insure stable and high yields. But over the past few years, more water has been used for irrigation, resulting in a serious lack of balance in the county's water resources and the use of water. The county lacks about 10,000 cubic meters of water every year. The underground water level on the average drops by 1 meter per year. There are more than 4,800 wells throughout the county but the water level of 1,000 of them is so low that it is impossible for 3-inch pumps to draw the water at full capacity. Investigations of Xiying and two other people's communes reveal that of the present 798 wells, 50 have dried up, 632 can be drawn at over half capacity, 76 at under half capacity and only 40 at full capacity. To change this situation, the county is planning to change manual farm irrigation work into mechanized irrigation. Typical investigations have shown that about 15 to 20 cubic meters of water are enough to irrigate 1 mu of farmland with machinery, 50 to 60 percent less than through manual irrigation.

With the introduction of the 1-year double-cropping system throughout the county, the farmland no longer lies idle in winter, creating conditions for insect pests to breed. This situation is particularly serious in the farmland that is used for interplanting cotton and wheat because such land is constantly used for several years running, leaving no time to replow or for grasses to grow. Take the management of cotton for example. To control cottonboll worms it is necessary to spray insecticides once every 3 to 4 days. But as such work is done manually, each production team has to set up a group specialized in controlling insect pests. Each group on the average is composed of 10 youths who can only spray insecticides once every 8 to 9 days in rotation. The production teams thus urgently demand to mechanize spraying. In addition, a certain amount of grain decays every year because it cannot be dried in due time during the harvesting season. If the county is able to mechanize drying, it can save 5 percent more grain each year.

Third, the county's farm labor productivity is so low that the peasants can only produce just enough grain to feed themselves. This situation has seriously restricted the development of productive forces and hindered a basic change in the rural economy.

The county's economy basically just relies on the development of grain production. Of the 118,000 laborers, about 100,000 are engaged in

farm production. Of the collective income in 1977 that could be distributed, 0.4 percent was from forestry and 0.8 percent from animal husbandry, with virtually no income from fishery. The county has also lopsidedly developed grain production. Although the county's total and per unit grain output is quite high, farm production is restricted by the natural reproduction. It is hard to make a breakthrough in output in a short period because of limited farmland and because of the scissors' differences in the prices of industrial and agricultural products. In 1977, each farm laborer could only supply an annual 2,400 jin of grain and each agricultural population had an annual accumulation of only 12 yuan, equivalent to 6.6 yuan per mu and an average annual income of 80 yuan.

The above situation shows that the county's ability to expand agricultural production is very low while the rural population are producing just enough grain to feed themselves. This has been the basic reason for the county's inability to change the rural economy rapidly.

To change the present situation, it is imperative for the county to rapidly realize agricultural mechanization, drastically raise farm labor productivity, emancipate a great number of farm laborers, undertake diversified economic activities and set up industries that are managed by people's communes and production brigades.

Agricultural mechanization is an objective demand for the county to solve seasonal labor shortages, fight natural disasters, further develop production, increase the income of collectives and each commune member, consolidate the collective economy and basically change the rural economy.

#### II. Economic Problems in the Process of Agricultural Mechanization

Mechanization is vital for the county to further develop agriculture. On the other hand, the broad masses of commune members have also demanded that the pace of mechanization be quickened. But experiences over the past few years have shown that there have been a number of economic problems for the county in mechanizing agriculture. The peasants have summarized these problems into two points: Whether they are able to purchase machinery and whether they can make use of the equipment.

"Whether they are able to purchase machinery" shows the contradiction between big investments on mechanization and low accumulative ability and a lack of funds on the part of people's communes and production brigades.

At least four investments are needed to realize agricultural mechanization-- investments in farm machinery and tools, and construction, equipment and farm capital construction that is to serve farming mechanization. The county's agricultural production has developed rapidly since 1969. Consequently, it used a considerable amount of money from the funds accumulated every year to purchase farm machinery to increase the level of mechanization rapidly. For example, the number of big tractors in 1978 was 285 against

57 in 1970. The county began to purchase small tractors in 1971, with the number increasing to 961 in 1978. All these tractors have a total of 24,174 h.p., which means 1 h.p. for every 23.6 mu. Each of the total horsepower of the farm machinery is responsible for 4.77 mu. This means that 10,000 mu of farmland have farm machinery with a total of 2,130 h.p., more than twice the national average standard. But the county's agricultural production began to fluctuate in 1974, followed by decreases in the accumulation of agricultural production. The question of "whether we are able to purchase farm machinery" has since become more prominent. In 1979, two of the county's 16 people's communes invested a total of 19.37 million yuan in farm machinery, equivalent to 41.2 yuan investment on each mu of the county's total farmland, but the funds raised by the people's communes and production brigades throughout the county for the purchase of farm machinery that year were equivalent to 4.6 yuan per mu. The rate of self-raised funds was only 11.1 percent.

According to its mechanization plan, the county needs 80 million yuan of investment to basically realize farm mechanization, equivalent to 170 yuan per mu of farmland. But the county's present accumulation from agriculture plus the part of the profits from commune-run and brigade-run enterprises that is used to support agriculture is only equivalent to 6 to 11 yuan per mu each year. This 6 to 11 yuan has to be deducted by annual per mu depreciation, the cost of farm capital construction and the investments on the expansion of some reproduction items. Thus, the amount of the funds that can really be used for investment on farm machinery is just about several yuan per mu. According to this accumulation level, quite a long period passes before the funds needed for mechanization are accumulated.

The idea of "whether they can make use of machinery" shows that although the county's farm machinery equipment has developed over the past few years, the level of mechanized field operations still lags behind. The county's index of tractor horsepower per 100 mu of farmland is only about 50 percent of the present level in the United States. The comprehensive mechanization level of the county's present acreage under mechanized plow, harrowing, sowing, harvesting and crop protection is only about 32 percent of the demand of the farming technology even though these 5 operations are easier to be mechanized.

The following six points are the reasons the county has not been able to fully and rationally make use of farm machinery and for the level of mechanized field operations which lag behind the level of the farm machinery:

First, the contradiction between high-priced and low quality farm machinery, incomplete sets of farm tools, short supplies of spare parts and the demands of agricultural mechanization.

The county has more than 30 types of "ancient and modern Chinese and foreign" tractors. It is therefore very difficult to operate, repair and manage so many types of tractors. There are only 2.2 to 2.5 necessary supplementary



farm tools for these tractors. These tools are mainly 1 plow and 1 trailer. With these supplementary tools it is impossible for the tractors to do various field operations. In addition, farm machinery and tools are expensive and low in quality and do not have enough spare parts. Therefore once they are out of order they often lie idle and thus seriously affect production planning and output.

Second, the contradiction between agricultural mechanization and commune-run and production brigade-run principle and types of production and the type of crop rotation that has yet to be finalized.

Generally speaking, the supplementary equipment for farm machinery and tools, including the types of tractors, the number of horsepower and the number of machines are determined by the principles and types of production and the types of crop rotation. But the county purchased farm machines before it finalized its production principles, the structure of production departments and the types of crop rotation. Consequently, once the production orientation, the structure of the production departments and the types of crop rotation are slightly changed, some of the machinery will eventually lie idle to affect mechanized operations.

Generally speaking, the arrangements for farm machinery and tools can only be made after the arrangement of production (including regionalized planting) is finalized.

Third, the contradiction between agricultural mechanization and the manual cropping system.

The county's present cropping system is to interplant wheat with summer corn and cotton with wheat. It adopted such system to solve the seasonal shortage of labor power in doing three summer and three autumn jobs. Such a system is the product of manual labor and was in line with the productive forces when it was adopted. But with the realization of mechanization, the contradiction of the system began to appear. Farm machinery cannot operate in the 130,000 mu of farmland that is used for interplanting cotton with wheat. In the 300,000 mu of farmland that is used for interplanting wheat with corn, machinery can do the plowing, sowing and manure distributing during the wheat showing period that lasts for 30 to 40 days. But for the rest of the time, there is no room for machinery to play its role. Typical investigations show that farm machinery can do farm operations for only 40 to 50 days a year, just more than 10 percent of the yearly work days. Although the central Hebei plain is an ideal area for agricultural mechanization, it is impossible with such a cropping system for farm machinery to fully play its role in farm operations.

Fourth, the contradiction between agricultural mechanization and the saved labor force that cannot be arranged well for the time being.

The county's Majiazhuang people's commune saved about 15 percent of its labor force in 1977 thanks to the increase of farm machinery operations.

But the commune could only utilize 5 percent of the saved labor force because it was not able to fully develop a diversified economy and the industries that are run by the communes and production brigades. The other 10 percent of the saved labor force thus remained idle in agriculture, causing a "surplus" labor force. This situation is similar throughout the whole county. For example, the number of tractors throughout the county increased 7 times from 1973 to 1977, but no labor force was emancipated from farm work during this period. On the contrary, an additional more than 4 million laborers were used during this period, with an average annual increase of 2.8 percent. Commune members are dissatisfied with this situation that has greatly affected their initiative in using farm machinery. The county has a deficient labor force during the busy farming seasons, but not for the whole year. This situation has hindered the development of agricultural mechanization. The labor force used in transportation for agricultural production is about one-third to a half of the total labor force engaged in agriculture. In fact, farm service transportation should have been mechanized. But a number of production teams now solely depend on horse-drawn carts and wheelbarrows and use tractors in nonfarm service transportation in a bid to increase the income of the communes and production brigades. It is apparent that when all the farm laborers who are emancipated by mechanization still do not have other jobs and when farm machinery makes more income from nonfarm service operation than from farming operations, it is then difficult to realize agricultural mechanization even though there is enough equipment.

Fifth, the contradiction between agricultural mechanization and the demand to lower production costs.

With increases in grain output over the past 20 years, the county's agricultural production value has also increased. At the same time, agricultural expenses have also increased at a rate higher than that of agricultural production value. In the 1960's when grain output was about 400 jin per mu, agricultural expenses made up one-third of the agricultural production value. In the first half of the 1970's grain output was in a transitional period from 400 to 900 jin per mu and agricultural expenses were at a range of one-third to a half of the agricultural production value. In the first half of the 1970's, grain output exceeded 900 jin per mu while expenses made up 50 percent of the production value. The income of commune members also gradually increased during the 1960's. In the first half of the 1970's, it remained stable at 85 yuan, but in the second half it dropped to 80 yuan. This situation shows that when the level of science and technology experiences no great changes, increases in per unit output are eventually followed by increases in expenses. When this situation develops to a certain degree, the absolute value of net income will also drop. This situation has drawn people's attention because it happened in a county with high agricultural production.

In the county's agricultural production expenses, the ratio in the expenses of agricultural mechanization is not high. The typical investigations made

in Chenchun and two other people's communes on the production costs of wheat show that the expenses for all machinery, including those for tractor-plowing and irrigation and drainage, were about 8.6 to 12.2 percent on an average of about 10 percent of the per mu material expenses (expenses for material goods in production expenses). This ratio is now on the increase. Of particular interest is the fact that the county does not have a complete set of farm machinery and tools and an insufficient supply of spare parts. In addition, the machinery is often out of order. This equipment therefore cannot insure the timely completion of rush farm jobs. Consequently, it is impossible for the county to emancipate labor and animal power from agricultural production in a big way. Therefore, in addition to farm machinery and tools, the county still also has to depend on a certain amount of labor and animal power to drastically increase the costs of agricultural products.

Sixth, the contradiction between agricultural mechanization and some aspects of the present relations of production.

At the present stage, the basic system in rural people's communes is the three-level ownership by the commune, the production brigade and the production team, with the production team as the basic accounting unit. These production relations are generally in line with the present situations of agricultural production in most parts of the country. But the use of highly efficient big tractors in farm production has been followed by two new problems. The first problem is that while a big tractor can plow over 1,000 mu, it cannot operate on a production team's farmland because of its limited size. To use such tractors rationally, it is imperative to set up tractor stations run by communes or production brigades to enable them to use the tractors in a unified way. The second problem is that the unified use of the tractors makes it difficult to carry out mechanized operations on the fields belonging to one production unit but enclosed in those of another when these fields are being used for various different crops. It is particularly difficult for mechanized farm operations in Luancheng County where every 240 mu have been defined as a crop unit and each unit is composed of several plots that belong to different production teams while each plot is devoted to different crops. Therefore, the contradiction between mechanized farm operations and individual management by production teams becomes even more acute, thus affecting the use of farm machinery.

In short, it is an objective demand for the county to realize agricultural mechanization and further develop the rural economy. But the county is faced with a number of contradictions in mechanizing its agriculture: The communes and production brigades do not have enough funds, incomplete sets of high-priced and low quality farm machinery and tools, nonfinalized production principles of both communes and production brigades, a cropping system out of line with mechanization, improper arrangements for the labor power that is saved by mechanization, increases in production expenses and many aspects of the relations of production that are unsuitable for mechanization. All these contradictions constitute a big obstacle for further development of agricultural mechanization. These problems are also common throughout the country and are worth studying.

### III. Analyses on the Economic Conditions That Affect the Pace of Agricultural Mechanization

The above-mentioned analysis shows that agricultural mechanization is not isolated; it is closely related with other links of the whole industrial and agricultural production. Changes in these links demand that agricultural mechanization needs economic conditions as a premise. Agricultural mechanization is a major part in the whole national economic system, particularly in the agricultural production system. Therefore, in determining the scale and pace of mechanization we cannot depart from other economic conditions and solely rely on the conditions of the mechanization itself. On the contrary, the scale and pace of mechanization must be studied and decided on according to the demands and possibilities of some major economic conditions.

These economic conditions mainly manifest themselves in the following three points:

First, the condition for farm machinery building industry. Agricultural mechanization means that modern industry provides agriculture with farm machinery. When conditions permit, all units must use farm machinery to replace manual labor. Therefore, the pace of mechanization must first be decided on by the quantity and quality of the technical equipment supplied by the farm machinery building industry. That is to say that mechanization depends on the level of the modernization of the industry. If the industry can provide agriculture every year with low-priced, high quality and complete sets of farm machinery and tools and complete spare parts and if this equipment is suitable for the cropping system, then the labor force used in making farm machinery may be lower than the labor force that is saved by the machinery in agricultural production. This is an important premise for a rapid development of agricultural mechanization.

Second, the condition for the management of agricultural production. According to China's situation, this condition refers to whether crop growing is specialized and carried out on large fields; whether planning has been worked out with regard to fields, ditches, wells, forestry and roads so that they are suitable for mechanical farming; and whether the cropping system (mainly referring to interplanting and intercropping) has been reformed to suit mechanized farming. In short, if soil utilization, crop locations and the cropping system under manual labor are yet to be reformed, it is then impossible for farm machinery to play its role. When soil utilization, the locations of crops and the cropping system are being reformed, this work may be obstructed by the limited and narrow relations of production. As long as this obstruction is limited only to some aspects, it is not necessary to hurry the reform of the relations of production. It is enough, within the sphere of a production brigade, just to adjust the necessary relations on the basis of exchanges in equal values to realize a rational soil planning and to carry out crop growing on large fields. The use of farm machinery and tools may also be put under the unified management of a



commune or production brigade without having to reform the existing ownership. This measure will help overcome the shortcoming of the narrow relations of production and will enable communes or production brigades to utilize the soil and use farm machinery and tools on wide fields more rationally to improve mechanized farm operations.

Third, the condition for commune and production brigade economic power, in a situation where the state does not have enough funds to support agricultural mechanization, the pace of the mechanization depends on the commune and production brigade fund accumulation rate, the ability of production departments to use the labor force saved by the mechanization and the rate of growth in the income and production of the mechanization. In short, the pace of mechanization is decided by the ability of communes and production brigades to expand reproduction and by their economic power. The growth of the ability to expand reproduction and the growth of economic power are mainly decided by the degree of the diversified economy of communes and production brigades and the scale and development of their industries. Rapid agricultural mechanization is possible only when communes and production brigades have developed diversified economic activities and their industries, because the various incomes from the use of farm machinery may then exceed the expenses of the machinery, or the value created by the labor force that is saved by the use of machinery may then have a surplus after the expenses of the machinery are covered.

It is apparent that the scale and pace of mechanization is determined by the above-mentioned three aspects of the objective economic conditions rather than the people's will. Haphazard increase of agricultural machinery will not help to improve mechanized farm operations if these conditions are neglected, even though the level of mechanical equipment may be raised. On the contrary, such haphazard increases may only increase the economic burden on communes and production brigades and even cause wastes and losses that may otherwise be avoided.

The analysis of the above mentioned three conditions that affect the pace of agricultural mechanization may be concluded into the following two points:

First, the three economic conditions for agricultural mechanization are different in various places of the country. Generally speaking, those areas with vast farmlands and little population have greater potential for developing agricultural production, a diversified economy and industries run by communes and production brigades. With machinery, such areas can increase labor productivity, tap the potentials of agricultural production and find more ways for production to develop production and economy. Commercial grain production bases, particularly those producing industrial crops, fruits and vegetables usually have high production and economic interest. The industries run by people's communes and production brigades in such areas also develop rapidly. Thus, with strong economic power, the income from the use of machinery in such areas is higher than the expenses

of the machinery or the value created by the labor force that is saved by machinery still has a surplus after it is used to cover the expenses of the machinery. Such areas must concentrate their power to realize agricultural mechanization. In mechanizing agriculture, it is imperative to concentrate and make use of investments in complete sets of machinery to emancipate the labor force and enable the equipment to play its role. All areas with good conditions must carry out mechanization in a big way. Those with no conditions may start mechanization later and in a small way or create conditions for a large scale agricultural mechanization. The principle of concentrating efforts must be followed and the mechanization of farmlands must be realized one after another. It is wrong to carry out mechanization in a big way without considering the conditions.

Second, of the three conditions that affect agricultural mechanization, the cropping system is easier to reform while other conditions can only gradually be resolved after a certain period of hard work. Therefore, generally speaking, the realization of agricultural mechanization in ordinary areas is a process and cannot be realized in one stroke. In planning the pace of mechanization in ordinary areas, efforts must be made to create the conditions for a rapid development of mechanization. This work cannot be done hurriedly. Agricultural mechanization must be carried out gradually and steadily so that the speed of the mechanization coordinates with the speed in the modernization of the farm machinery building industry, with the locations of crop growing, soil utilization, the speed in the reform of the cropping system and the speed in the development of enterprises run by communes and production brigades. According to this measure, although it seems that the mechanization will develop slower, in fact it will develop quicker because such measures will help build up the economic foundation for the mechanization and evade tortuous paths in carrying it out. Those who are ardent in agricultural mechanization must be active in doing the economic foundation work.

The following two points must be observed in carrying out agricultural mechanization in areas with no economic foundation:

First, continuous efforts must be made to improve the supply of the attached equipment and spare parts of farm machinery and tools, improve the management of farm machinery and tools and reform the cropping system to enable the existing machinery and tools to fully display their roles.

Second, key jobs with not enough labor force but which affect increases in farm output must be mechanized first. With regard to the situation in Luancheng County, it is imperative to solve the contradiction between summer harvesting and threshing and summer sowing and management, solve the shortage of labor force during autumn wheat sowing and to mechanize crop protection. That is to say, the country must gradually mechanize wheat and corn sowing, harvesting, threshing, drying and the spraying of insecticides. All these things must be followed by mechanization in other cropping and farm operations. In short, mechanization must be carried out by stages and realized where it is most needed.

Agricultural mechanization is the core of agricultural modernization and is an urgent task of the people throughout the country to quicken the pace of the mechanization. It is of great significance to speed up the mechanization, study the economic conditions for the rapid development of mechanization, discover the interrelation between economic conditions and the pace of mechanization and the law of the development of movement to correctly arrange for a rapid development of agricultural mechanization.

CSO: 4007

BRIEFS

MILK COW INSTITUTE ESTABLISHED--The main office of the State Farms Joint-Enterprise Company of Tianjin Municipality recently set up a milk cow institute to modernize the city's cattle industry. This institute will launch research projects to seek better techniques for breeding and raising milk cows and for controlling milk cow diseases, and will collect and publish domestic and foreign scientific information on milk cow breeding and raising. [Tianjin TIANJIN RIBAO in Chinese 13 Mar 80 p 1]

JANUARY OUTPUT OF SMALL FERTILIZER PLANTS--The January output of small chemical fertilizer plants in Tianjin Municipality was a record high of 25,000 tons, a 36.7 percent increase over January of 1979. Through better management over coal and electricity and through the utilization of surplus furnace heat, the average consumption of coal and electricity for each ton of synthetic ammonia produced was 2,927 kilograms and 1,570 kilowatt-hours respectively, which were lower than the consumption standards set by the municipal chemical work department. Compared with figures of January 1979, the consumption of coal and electricity for each ton of synthetic ammonia produced was reduced by 1,672 kilograms and 298 kilowatt-hours respectively; this was equal to a saving of 16,000 tons of coal and 2.17 million kilowatt-hours of electricity, or a saving of 770,000 yuan. [Figures are as reported] [Tianjin TIANJIN RIBAO in Chinese 19 Feb 80 p 1]

CSO: 4007

## BRIEFS

WHEAT SOWING--As of 2 April, Hulan, Wuchang, Bayan and Mulan counties in Songhua Jiang Prefecture, Heilongjiang, had fulfilled the wheat sowing task of 410,000 mu. Bayan County started to sow wheat on 200,000 mu and fulfilled the task on 2 April. [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 3 Apr 80 OW]

ZHAODONG ALL-ROUND DEVELOPMENT--Harbin, 4 Apr--Heilongjiang's Zhaodong County has made all-round developments in agriculture, forestry, animal husbandry, sideline production and fisheries over the past three years. In 1979, per-mu grain output was increased from 220 jin to 402 jin, and some 380 million jin of marketable grains were delivered to the state. The individual income in last year reached an average of 120 yuan, or a one-fold increase over 1976. The county has by now established some 1,000 commune and brigade-run enterprises, and the output value has been increased by 85 million yuan and profits by 7.2 million yuan. Over the past 3 years, Zhaodong County has provided 8.3 million yuan of funds to agriculture. In addition to increasing the tractors from 520 sets in 1976 to 880 sets, the county has also built and improved 2,000 pump wells, expanded 3 irrigation projects, and built as well as improved some 100 pump stations. [Beijing XINHUA Domestic Service in Chinese 0220 GMT 4 Apr 80 OW]

CIRCULAR ON AFFORESTATION--The Heilongjiang provincial CCP Committee and the provincial people's government issued a circular on 31 March calling for conscientiously implementing the CCP Central Committee and the State Council's directive on the task for afforestation. The circular called on all leading comrades to take the lead in planting trees. The peasants are encouraged to plant trees in and around their courtyards, or in places designated for tree planting by their production teams. These trees also are owned by the planters. The circular also called for developing nursery stocks and raising the survival rate of saplings to more than 80 percent. [OW031149 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 2 Apr 80 OW]



## HUBEI

### BRIEFS

AGRICULTURAL INVESTMENTS READJUSTED--Hubei has readjusted its ratio of investments in agricultural capital construction, raising this year's investment in agriculture, forestry, animal husbandry, sidelines production and fishery to a level 7.7 percent higher than that of 1979. This was achieved by reducing investment in farmland water conservancy projects, which were a major investment in the past. The existing water conservancy facilities in the province are considered adequate for combatting future disasters, and the shift of emphasis is deemed beneficial to the comprehensive development of agriculture in general. For instance, the agricultural research departments have been allotted more than 2.7 million yuan for basic capital construction this year to acquire needed research equipment. [Beijing RENMIN RIBAO in Chinese 21 Mar 80 p 2]

CSO: 4007

## BRIEFS

**MORE AGRICULTURAL LOANS AVAILABLE**--According to statistics of agricultural banks in Hunan, the total amount of available agricultural loans and available funds for making deposits on goods purchased in advance in the province for the entire year of 1980 will be 20 percent greater than that of 1979. Li County, a major grain and cotton producing area in the province, has on hand over 40 million yuan to be used as agricultural production funds, averaging more than 30 yuan for each mu of farmland. Some of these funds are surplus funds from rural saving deposits. By February, the total amount of rural saving deposits in the province was 40 percent greater than in the same period of 1979. [Beijing RENMIN RIBAO in Chinese 21 Mar 80 p 2]

**AQUATIC RESOURCES REGULATIONS**--Recently, the Hunan people's government issued regulations on protecting the breeding of aquatic resources in Hunan, demanding that the people's government at all levels and the administration departments of aquatic products strengthen their leadership. The regulations listed 40 main economic fish and aquatic animals and plants that require protection. The regulations also set the standards for catching the fish, animals and plants. The regulations demanded that all factories, mines and other enterprises treat the three wastes seriously. [Changsha Hunan Provincial Service in Mandarin 2315 GMT 2 Apr 80 HK]

CSO: 4007

## JIANGSU

### BRIEFS

**DANYANG COUNTY SUMMER CROPS**--Danyang County, Jiangsu, is strengthening field management of its summer crops on 700,000 mu. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 2 Apr 80 OW]

**WATERLOGGING PREVENTION**--Cadres at all levels in Dongtai County, Jiangsu, are leading the masses in digging mountain gullies to drain excessive water from wheat fields. As of the end of March, they had completed such digging work for 85 percent of the county's 700,000 mu of wheat. Since the beginning of spring, there have been continuous rainfalls in the county, creating waterlogging disasters for wheat fields. The county party committee mobilized over 3,000 cadres to lead the masses in fighting against waterlogging. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 5 Apr 80 OW]

**YANCHENG COMBATS EXCESSIVE RAINS**--For fear that the county will continue to have excessive rains in April and May, the Yancheng County party committee, Jiangsu, has taken necessary measures to strengthen field management for summer-ripening crops, cultivation of early rice seedlings and cotton sowing work. The people throughout the county are now actively engaged in carrying out the measures in an effort to overcome natural disasters caused by the rains and protect their crops. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 5 Apr 80 OW]

**SHAZHOU COUNTY WHEAT FIELD**--People in Shazhou County, Jiangsu, are strengthening field management of their 450,000-mu wheat, barley and naked barley crops to overcome the adverse effect of rainy weather of the previous weeks. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 1 Apr 80 OW]

**BUMPER HARVEST OF HAIR-TAIL FISH**--Fishermen in Jiangsu caught 633,000 dan (piculs) of hair-tail fish during the winter fishing season just ended. This was 29 percent greater than in the previous winter and another bumper harvest since 1949. [Beijing RENMIN RIBAO in Chinese 26 Feb 80 p 2]

CSO: 4007

## BRIEFS

COMMODITY GRAIN INCREASE IN CHANGTU COUNTY--Despite many disasters, Changtu County of Liaoning reaped a bumper grain harvest of 1.48 billion jin in 1979, an increase of more than 71 million jin over 1978. In 1979 this county turned over or sold to the state 705 million jin of commodity grain. This was some 55 million jin above that of 1978 and was surpassed only by Yushu County of Jilin and Xinghua County of Jiangsu. [Beijing RENMIN RIBAO in Chinese 11 Feb 80 p 1]

LOW RAINFALL--According to information released by the Liaoning provincial meteorological department, there will be little rainfall in April in most parts of the province, while the average temperature for the whole province will be somewhat higher than usual. In April the temperature in most parts of the province is expected to be from 0.5 to 1 degree above the level usually experienced at this time of the year. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 31 Mar 80 SK]

MINOR SPRING CROPS--The Liaoning provincial CYL Committee, women's federation, supply and marketing cooperative and agriculture, education and grain bureaus issued a joint circular recently which called for efforts to plant spring-sown minor crops such as sunflowers, castor-oil plant, tobacco and sesame on the condition that no forests will be damaged and no soil erosion is to be caused. The circular states that each production team should plant 10 to 15 mu of such crops. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 26 Mar 80 SK]

AFFORESTATION CIRCULAR--The Liaoning provincial CYL Committee recently issued a circular calling on youths throughout the province to carry out activities of planting trees, grass and flowers. The circular urged them to go into action immediately and to work hard so as to gradually build our province into a good place where there are no vacant plots in urban areas, no bare hills in rural areas, cities are full of the blossoms in spring and summer and pine and cypress are green everywhere in autumn and winter. The circular called on youths to strive to build their working and living surroundings into garden-like area. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 25 Mar 80 SK]

AFFORESTATION PLAN--The 12 cities of Liaoning Province, including Shenyang, Luda, Anshan, Liaoyang and Dandong, plan to make the province green this year. They have drawn up a schedule for success in sound growth of 5,212,000 trees, laying 4,145,800 square meters of lawns and planting 196,000 flowers this year. Since 1979, the 12 provincial cities have planted more than 3,550,000 trees and have laid more than 60,000 square meters of lawns. This has been a considerable contribution in improving urban people's living environment. These cities are also paying great attention to afforestation work done by the plants, mills and enterprises in their areas. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 27 Mar 80 SK]

## SHANDONG

### BRIEFS

PINGDU COUNTY CROP ACREAGE--Pingdu County ranks first in area of cultivated land among counties in Shandong. The county has 1.2 million mu of wheat fields, 380,000 mu of cotton fields, 285,000 mu of peanut fields, and more than 700,000 mu of other spring-sown crops. [Beijing XINHUA Domestic Service in Chinese 0212 GMT 31 Mar 80 OW]

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RICHEST YOUTH TEAM IN XINJIANG MAKES PROGRESS

Beijing RENMIN RIBAO in Chinese 2 Jan 80 p 1

[Article: "The Richest School Graduate Youth Team in Xinjiang"]

[Text] According to a report in XINJIANG RIBAO, the school graduates of various nationalities of the Tekesi County Second Commune, Second Brigade, School Graduate Youth Team, the "All-China Long March Shock Brigade," reaped an abundant agricultural harvest again in 1979. Each school graduate produced on average more than 13,200 jin of grain (wheat and provided more than 10,000 jin of commodity grain, worth an output value of 3,884 yuan.

By the first third of December, this team fulfilled its year-end (cash) commitment. For an average labor value of 6 yuan, each person had an average income of 1,005 yuan, surpassing the income of a grade-four worker in that locale. The deputy team chief, Kelimu [0344 6849 2606] had the highest income, with a share of 1,650 yuan. With humor he told his fellow workers, "my pay is even higher than a grade-seventeen papa's."

After the school graduates had collected the remuneration for their own labor, they returned happily to the towns to visit with their parents.

Everyone commended them, saying, in this type of school graduate youth team, the youths have their wits about them, and the heads of their families are proud. The commune members of the place welcome them and leaders of all grades are happy with them.

The Tekesi County Second Commune, Second Brigade, School Graduate Youth Team was established in the fall of 1976. They have endured the hard work of three winters and springs, building more than 1,000 mu of land with high and stable yields. At present, the team as a whole possesses five tractors and they have essentially realized mechanization of plowing, sowing and threshing.

XINJIANG

BRIEFS

HONEY PRODUCTION--The 1979 honey output in Xinjiang was 1,600 tons, a record high for the area. The previous record yield was a little over 800 tons in 1966. [Beijing REMNIN RIBAO in Chinese 3 Mar 80 p 2]

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ZHEJIANG

BRIEFS

SOYBEAN GROWING--Chunan County of Zhejiang Province has planned to grow 100,000 mu of soybeans this year, an increase of 12,000 mu over 1979. As of 4 April, some 85,000 mu of soybeans were planted in Chunan County. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 7 Apr 80 OW]

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in Chinese Aug 78 pp 1-2

[Book: "Zuowu Yuzhong Fence [Volume on Crop Breeding]" one of 4 volumes of  
"ZENYANG ZUO TIANJIAN SHIYAN", part of NONGCUN KEXUE SHIYAN CONGSHU [COL-  
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in Chinese Mar 79 pp 1-2

[Book: "Zuowu Caipai Fence [Volume on Crop Cultivation]"; one of 4 volumes  
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